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TRANSCRIPT OF PROCEEDINGS

PRODUCTIVITY COMMISSION

INQUIRY INTO WASTE GENERATION AND RESOURCE EFFICIENCY

MR P. WEICKHARDT, Presiding Commissioner

TRANSCRIPT OF PROCEEDINGS

AT MELBOURNE ON WEDNESDAY, 2 AUGUST 2006, AT 11.09 AM

Continued from 1/8/06

MR WEICKHARDT: Good morning, and welcome to the public hearings for the Productivity Commission inquiry into waste management and resource efficiency. My name is Phillip Weickhardt and I'm the presiding commissioner on this inquiry. The inquiry started with a reference from the Australian government on 20 October 2005. The inquiry will examine ways in which waste management policies can be improved to achieve better economic, environmental and social outcomes. The inquiry covers solid waste and, more specifically, the issues associated with municipal, commercial, industrial, construction and demolition wastes.

We're grateful to the many organisations and individuals who have already participated in the inquiry. The purpose of these hearings is to provide an opportunity for interested parties to discuss their submissions and their views on the public record. We released the draft report on 23 May 2006 and have received a number of submissions on the draft report. We have already held hearings in Perth, Brisbane, Sydney and Canberra, and by the end of this week we will have completed hearings in Melbourne. After considering all the evidence presented at the hearings and in submissions, as well as other relevant information, a final report will be forwarded to government in October 2006. Participants in the inquiry will automatically receive a copy of the final report.

We like to conduct all hearings in a reasonably informal manner, but I remind participants that a full transcript is being taken. For this reason, comments from the floor cannot be taken, but at the end of the proceedings for the day I will provide an opportunity for anyone wishing to do so to make a brief presentation. Participants are not required to take an oath but are required under the Productivity Commission Act to be truthful in their remarks. Participants are welcome to comment on the issues raised in other submissions or by other speakers here today.

The transcript will be made available to participants and will be available from the commission's web site following the hearings. Copies may also be purchased using an order form available from staff here today. Submissions are also available on the web site or by order form.

To comply with the requirements of the Commonwealth occupational health and safety legislation, I draw your attention to the fire exits, evacuation procedures and assembly points. The fire exits from this room are out to the right into the stairwell, and there are fire stairs at either end of the stairwells. The assembly points are opposite the houses of parliament and in the Treasury Gardens.

Can I ask the audience to please turn off their mobile phones or to turn them to silent. We will now have our first participant, who we need to reach by phone link-up, the Darwin City Council. We'll just adjourn while we do that.

MR WEICKHARDT: Good morning, Angelika and Brendan. For the transcript and for volume purposes, if you could just give your names and the capacity in which you're appearing before this hearing, please.

MS HESSE: Angelika Hesse. I'm environment manager for the Darwin City Council. As part of my duties I look after landfill operations, the contracts here, and waste collection.

MR WEICKHARDT: Thank you.

MR DOWD: Brendan Dowd. I'm the director of technical services at Darwin City Council. Environment and waste management is my portfolio here.

MR WEICKHARDT: Thank you very much indeed for your submission, which you should assume we've read, but if you want to elaborate on any points, please go ahead.

MS HESSE: The major concern for us really was, number 1, that the Northern Territory's waste data was absent from the otherwise pretty detailed submission documents. One of the issues that we also have concern about is a recommendation to fully commercialise our landfill operations and leave collection services with the councils. The reason given is that it is not viable in the short term for commercial operators to do waste collection but it is for landfill.

The concern we have from the territory's perspective is that obviously, as you know, we are very remote in the Darwin area. We cover approximately 60 to 65 per cent of the Northern Territory population. Our landfill service is not only for Darwin City residents but we also accept domestic waste from the neighbouring twin city of Palmerston and the Litchfield Shire Council. Our recycling service, in which council has just invested $1.25 million to construct and undercover recycling drop-off centre here is the only one of its kind in the whole of the Northern Territory.

The concern we have is that we would be giving away a profitable arm of waste management such as landfilling to commercial operators and leaving the unprofitable arm to the community, in particular in remote areas such as we are in here. Pay as you go also may be applicable down south, but is not up here, because we have hectares and hectares of crown land and our weighbridge charges need to be kept reasonable, or our litter problem, which already is pretty high outside the city area, will increase tremendously. There just aren't enough resources, to have, like in New South Wales, helicopter patrols. It is just not viable up here. Those were the major concerns we had in not really looking at specifically the remote areas.

Another issue is that in other states recycling is heavily subsidised by whatever means, whether that might be an environmental fee of, like in South Australia, 16 cents in the dollar. Up here in the Northern Territory we do not get any subsidies whatsoever, and recycling is not in any way part of our core responsibilities under the Local Government Act; just the opposite. Not even waste collection is a core function. It's up to the councils to decide what type of service they want to provide. We do provide waste collection and recycling for Darwin and our MRF is mainly funded through council ratepayers but is also used by the neighbouring smaller councils and shires, which otherwise could not recycle at all.

Alice Springs, Katherine, any of the other cities, have no recycling whatsoever because of the costs involved. It's really specific to the Darwin and Palmerston area. Again, because of the distance of markets and so on, it's not necessarily a profitable undertaking either. The commercial industry is not really interested in that, and we pay about double the amount for our kerbside recycling through the collection contracts as we pay for general waste.

By the same token, we operate a very modern landfill and we try to get income from other sources. For example, we have engaged in a partnership with Land Management Services and operate now a successful power station and landfill gas extraction plant, which brings us some income through energy certificates but also through a percentage of the power sales. All of that other income is used to cross-subsidise gate fees and keep collection charges at a reasonable level up here in Darwin.

MR WEICKHARDT: Thank you for those comments. Let me just react to a few of them to try to clarify the situation, and then I have a number of questions. First of all, in terms of the Northern Territory data being absent, I'm disappointed that that was the case, but we extracted and sourced most of the data that we quoted in this report - and I think that's referenced in the report - from another report prepared by Hyder Consulting or ITU Nolan. I'm interested in what data it is that you are reporting and where it's going, because that report is probably the most extensive one that's analysed data in this whole area. One of the issues you will see we alluded to in the report is that there are some big holes in the available data and some problems in comparing data from different areas. Could you just explain what it is you're reporting and where you're report it?

MS HESSE: We report to several agencies. One of them is the Australian Greenhouse Office through the National Pollution Inventory, which gets full data for our waste. We've participated in a number of trials there as well. We report also to the NT government, and this is under the Local Government Act, the recycling data and provisions, which include tonnages of materials recycled from the kerbside, tonnages recycled through our recycling service. That includes pre-cyclone data.

We also give the full set of data to the Australian Bureau of Statistics annually, and that includes everything we receive on landfill. We have databases going back to 1996, and our waste is subdivided. One of the most comprehensive ones, I've been told, by the Australian Bureau of Statistics, because we're separating out commercial waste, green waste, kerbside domestic wastes. We have all these different categories, even more than they record. I've also provided the data for the four-yearly - as in every four years - state of environment report to Environment Australia. Our data has been sent every year, and I got an email from the Australian Bureau of Statistics only two days asking for this year's data.

MR WEICKHARDT: Thank you for that. I might get a member of the team to talk to you separately and see if we can utilise some of that data in our final report. It would certainly help fill that hole.

MS HESSE: Thank you very much, because it is a large proportion of the Northern Territory and includes, since it's more a regional facility, a lot of the smaller shires as well. We can even identify the tonnages of waste coming from those outlying areas.

MR WEICKHARDT: Thank you for that. Coming on to your next point, you said you were concerned that we had recommended to commercialise landfill operations and leave collection with the councils. That's certainly not part of our recommendation, or indeed part of the thrust behind our policy choices that we're putting forward to government. What we have said is, first of all in regard to landfill, is that concerns have been expressed to us by many participants in these hearings that some landfills are not operating to best practice standards and indeed some are not complying with their licences. We felt that enforcement of compliance and ensuring that the externalities that could be caused by things like leachate and other pollution entering either air or water streams be attended to. That was thrust 1 behind our recommendation: make sure that landfills are operating to best practice and complying with regulations and licences.

Recommendation 2 was that we expressed concern - and I'd like to come back to Darwin and hear from you whether this is relevant in the Northern Territory or not - that in large urban centres there have been many concerns expressed by the waste management industry that contracting with a whole range of local councils is very problematic. They have in many cases incomplete or insufficient scale to tender with a provider of large capital-intensive facilities like AWTs, and in some cases they wrestle with planning issues about, for example, where landfill or other waste management facilities should be sited. In Sydney and Melbourne you may have regional groups of councils that agree to cooperate, but in Sydney in particular it was pointed out to us at the first round of hearings that those councils might be able to agree on lots of things but they find it hard to agree on where waste disposal facilities

or waste management facilities should be located.

We certainly didn't express any view as to whether or not landfills should be in private or in government hands. Our point of view is that landfills should operate to best practice standards and should comply with their licences. I hope that clarifies where we're coming from.

MS HESSE: Thank you very much for that. What concerned us what those statements and the question mark over whether a local government authority is the appropriate authority to manage landfilling. That was identified a couple of times even in the overview and in different recommendations. So this is where we came from with that. That was taken into our submission straight out of your document. We just wanted clearly up-front to identify that that could be an issue.

MR WEICKHARDT: Okay. Can we talk about your situation, then, in Darwin. Can you educate me a little. How many local council authorities are there covering the greater Darwin city?

MS HESSE: There's only one for the Darwin municipality, and that is the Darwin City Council. Then we have a twin city a little further down the road, Palmerston City Council. Then we have our shires, Litchfield Town Council. There are only six local government areas in the whole of the Northern Territory, but there is a large number of community councils, which are different from local government. They're not governed as such by the Local Government Act, only to an extent. In a local government council, take Jabiru, for example, basically a mining company could stand a lot of the members. It's more residents pulling together in a community council. They are elected and all of that, but they do not have the full responsibilities under the Local Government Act as we do.

MR WEICKHARDT: Okay. Just turning to the area around Darwin, which perhaps, from what you've said, includes Palmerston and Litchfield, if you drew a map around the more concentrated urban development around that area, to what degree do you believe each of those individual councils has the scale to deal with what they do independently themselves; or, alternatively, to what degree do they cooperate and pull together in terms of planning issues and construction and management of landfill, et cetera?

MS HESSE: Obviously there have been some issues in the smaller areas because of the scale and also because of the big development boom that's happened in the Northern Territory over the last three to five years. There are new suburbs in Palmerston springing up every half-year, and even the rural urban area of Litchfield has seen a lot of influx and development. Development - and this is a very important part of the Northern Territory - is not the responsibility of local government.

Development in the Northern Territory is the responsibility of something called the Development Consent Authority. That is a different group which is part of the DCA. They vary over two or three years. There can be an open expression of interest to join them, and they also have a core of NT government officers.

MR WEICKHARDT: Is that a state government body?

MS HESSE: It's more a statutory authority. It's not NT government; it's a statutory authority.

MR WEICKHARDT: But it's basically respondent to the territory government, is it?

MS HESSE: No, it's not; it's in its own right. It makes decisions about which developments go ahead and which ones do not following the planning scheme, which is obviously done by the NT government. The DCA itself is a stand-alone statutory body.

MR WEICKHARDT: But it reports to the minister, presumably.

MS HESSE: Yes.

MR WEICKHARDT: So planning for waste management facilities goes before that authority, does it?

MS HESSE: No, only if we actually need town planning approval for whatever reason. If the zoning is already right, then it only goes, for the actual construction, to a building board.

MR DOWD: Commissioner, it's the development consent only. That is to say, the councils within the Northern Territory don't have the power to issue planning approvals. That resides with the various divisions of the Development Consent Authority. Councils are, however, consulted in regard to development applications.

MR WEICKHARDT: So insofar as the planning for waste management facilities is concerned in the Northern Territory, do you feel that that's well managed and under control?

MS HESSE: There are two sides to that story. We had a lot of small landfills, for example, like Litchfield, which were shut down by the Department of Natural Resources, Environment and the Arts, which under the broader Waste Management and Pollution Control Act issues licences for landfills. There aren't many landfill licenses in the Northern Territory. A lot of the small community areas have only

between 1000 and 1500 residents or a bit more, and their landfills are obviously not environmentally friendly. Even the one at Palmerston was restricted to only inert materials and green waste, and this is why we're accepting at Shoal Bay basically all the domestic wet waste from commerce and also from the councils. So we do have their cooperation with the neighbouring shires, because we extend to them the same services at the same costs as are available to Darwin City ratepayers.

As far as environmental upgrades go, Shoal Bay is one of the most modern ones, and it can hold its head high. It's in there for awards. It's had fully lined landfill since about 2000. It has gas extraction and the power facility, which is one of the first in a tropical environment, and there are not too many across Australia as a whole. We have very good management there. The operation of the landfill is tendered out every seven to 10 years, but we have different operators doing different things to prevent unethical practices or profiteering. For example, we have a different contractor for the weighbridge from those in charge of burying the waste. We have a different contractor again for the recycling. So it draws the lines there. If you had only one company, you'd be facing the risk, if they were being paid by the tonne of waste disposed, that they wouldn't have any incentive to recycle, for example, steel, because it's very heavy and they might not get the same amount as when it is buried. Also it would be problematic if the same operator operates the weighbridge, who is then also charged for the volume.

So there is a safeguard in there by using different contractors to operate different parts of the landfill operation to ensure auditing is very clear and a very open process. We do go out for open tender, and we usually have no problem in addressing tenders either. Our tender will issue again in a year and a half, for example, for landfill operations, and we are already experiencing inquiries right now.

MR WEICKHARDT: Can I just clarify that issue, because it is an important one. By the way, I want to emphasise the point again that we're certainly not recommending that only one operator should be involved in these sorts of activities. I agree with you that that would be problematic. Coming back to this point about tendering out the operation of the landfill, how does that work in terms of the responsibility for eventually remediating and the long-term sort of management of that landfill after it has ceased to operate?

MS HESSE: The way we operate there is that obviously the council has a responsibility for remediating or any problems that might occur for the next 30 years after closure of the landfill. To that effect, we have a waste management reserve. We charge fees and charges for weighbridge and also, for waste collection from residential properties, we charge them separately to the rateable income. So they are identified separately. Any leftovers at the end of the year go into the separate reserve, and those funds are used then for future planning, for environment

monitoring and all the rest of that. Our reserve currently stands at about $3.5 million, and that is after we spend $1.25 million of that for construction of the recycling facility.

So, in effect, as part of what we charge - the budget overall - we have a component for future landfill management and post-closure care. Your problem arises in that if it was a completely commercial operation, you would have some problems after the expiry of the contract in 10 years' time when you point out you have a lot of problems occurring because it wasn't constructed correctly or the wrong materials were used. To recoup that, again, from a completely private company is just not possible.

MR WEICKHARDT: I think there are models elsewhere that hold private companies responsible for doing those things, but under your model, ,it sounds like, the way you tender that out, you take separate responsibility for long-term sort of remediation and care and simply charge the operator with day-to-day affairs. Is that right?

MS HESSE: That's right, yes. We operate a schedule of rates. So it's not like an independent contract. None of our contracts are. They're subject to external auditing, they're subject to our auditing, and they are paid by a schedule of rates. For example, there is an agreed price for a lining for a new fill. There's an agreed price per tonne of waste disposed. There's an agreed scheduled rate per cubic metre mulch refuse and so on. So it's really a service fee or charge. All of that is clearly identified.

However, we do hold, for 12 months at least after the contract expires, a bond from each operator in case any problems arise. We can then charge it back to them to have it brought up to standard. But obviously, as you know yourself, there are in landfilling long-term issues which might surface only in 10 or 15 years, and they need to be accounted for properly, which is what we have the reserve for. Our budget for waste management is independent from rates. We had a model assessed by an accountant from Queensland to comply with national competition policy provisions. We operate it like a business unit.

MR WEICKHARDT: Okay. Can I talk about compliance. You mention that the Shoal Bay landfill can hold its head high, but you said that some other landfills in the territory had been closed down. To what degree, do you think, is compliance of landfill in the territory appropriately managed? Is the regulation of it tough enough and are there moves afoot to get some of these non-complying non-best practice landfills to improve their standard of operation?

MS HESSE: In the Northern Territory really there is no environmental protection

agency as such at the moment. It is handled by several government departments, which have been rearranged every half year or so. They are now called the Department of Natural Resources, Environment and the Arts. Those guys are responsible for issuing landfill licences. They try their best, but staffing levels aren't high. There are only six to seven officers in there, which obviously is not very many for the whole of the territory. The other problems they are facing is remoteness. We don't even need to talk about commercial operators: nobody wants to operate in an area which has only 600 people. It's just not viable. So we provide a bit of a recycling service as far away as Kakadu National Park because there is nothing else.

As for controls for those, this has only just been set up, and we have currently out a draft paper for submissions for the future structure and functions of an environmental protection agency in the Northern Territory. So the government is certainly working towards amending all this legislation, but it isn't there as yet.

MR WEICKHARDT: Okay. Coming to the issue of recycling, you talked about the fact that you're doing quite a lot of recycling and have invested capital in it but that effectively it's cross-subsidised by the operation of the landfill. One of the issues that we raised in the draft report was that recycling is good up to a point, but if it's pushed too far it can consume more resources than it is saving, and that's not in the interests of the community. To what degree are you satisfied that the amount of recycling that's going on in the Northern Territory makes good sense from a total community point of view, taking account of environmental issues, social issues and financial issues?

MS HESSE: The Darwin community is very in on recycling. We're actually third per capita on recycling in Australia. I'm not sure whether you were aware of that. The council, before recycling was taken up, went out to the community and asked whether they wanted recycling, giving costs and all of the rest of it. 96 per cent of the community came back and said they wanted recycling. So, number 1, we have community support. We've just had a substantial community consultation process again through the environmental management plan for Darwin which we're currently developing. We have nearly 14 per cent of the population sending their surveys back, and recycling again rated fourth, and in some areas in third place, as important for the community of things they want council to do. So this is one thing that the community seriously wants to do - recycling - and to reflect that council has agreed to the $1.25 million recycling facility from the waste reserve.

MR WEICKHARDT: Angelika, if I could just interrupt for a moment there, when the community were asked by recycling, what were they told about the costs and the benefits associated with this?

MS HESSE: They were told that kerbside recycling is about as half more

expensive than the waste collection, which it is, and they were told that only certain things can be put up for recycling, such as the three types of plastic, paper and cardboard, aluminium cans and steel cans. We do not charge for anything recyclable to be accepted at the landfill. We have a scavenger operating on the landfill taking out steel and things like that - computers, furniture, et cetera. He does a roaring trade out there and it doesn't cost the community at all. That contract is $142,000 per annum, and $90,000 of that is for a pre-cyclone clean-up. That means a hard item large kerbside collection before the cyclone season. So really our recycling doesn't have a large cost.

Where it does have a cost is the green waste. The green waste is substantial. Because we're in a tropical environment, we have up to 140,000 tonnes of green waste per annum, mostly palm fronds and things like that. We do not collect green waste from the kerbside because it is too huge. It's not feasible. But domestic residents can bring it free of charge to the landfill where it is shredded and turned into mulch and compost. That is costing us some money because we're producing more mulch and compost than we can sell. The processes are good and they're declared weed-free, so the mining companies are sending big trucks now and purchase that mulch for stabilisation. It's very popular. But we also provide it free of charge to communities for revegetation projects, and we use excess mulch for better stabilisation on a landfill before the wet season and things like that. So it has value again, because if we take all of the materials, including topsoil - which is very scarce - that are purchased and work that out, it comes up at about fifty-fifty.

So our recycling service, the way we do it, does not have enough overheads, and for this reason it is not as expensive as compared to South Australia, New South Wales or anywhere else. You have really large companies tendering. You only spend a small amount of what they're charging you for actual operation and the rest goes to head office. The funds subsidise a whole heap of an organisation's administration arm. We went out for the recycling tender ourselves, and you wouldn't believe it: the tenders we received ranged from, as I said, $145,000 to $3.5 million for some large companies. That gives you an idea, and we were quite specific about the services we wanted. It was apples for apples.

MR WEICKHARDT: Angelika, what's the gate fee that the kerbside recyclers require at the MRF compared to the gate for material going to landfill?

MS HESSE: We don't have a gate fee at the MRF. We charge each domestic household $171 for our waste services. Again, if they want a private service - because there are three or four waste collection contractors here - they're free to do so and to ask for an exemption. We do not provide kerbside collection to commercial or industry businesses. They have to do their own. For unit developments we charge $141 per annum, and that includes waste collection. They get green and yellow bins.

That's included. For kerbside service it is $171, and again that fee has about a $30 component for landfill charges and the rest is for recycling and collection. So it's a package.

MR WEICKHARDT: Sorry, can I get that right. It's $171 for household, $30 covers landfill, and - - -

MS HESSE: Yes. The rest is for collection and recycling.

MR WEICKHARDT: Can you split the collection out from the recycling bill?

MS HESSE: Yes, we pay about $1 per collection bin for the general waste and we do not charge our collection contractor any gate fees for that waste; that's solely pick-up.

MR WEICKHARDT: That's $1 a week, presumably, is it?

MS HESSE: Yes, that's per pick-up, per bin, per collection. It is $1.67 per recycling, and that includes 60 cents towards the MRF.

MR WEICKHARDT: Right. How have you determined what is you collect in that recycled area, and what is the destination for most of the recyclates that you collect?

MS HESSE: As to what we get from the MRF, we have a handbook, and you are free to have a look at our web site. There's a calendar which outlines all of these things. In the yellow kerbside bins you can only put in aluminium and steel cans, cardboard and three types of plastic. Every other recyclable is accepted straight from domestic as well as commercial operators at the landfill recycling place. So people have to bring it out there.

MR WEICKHARDT: What about paper and cardboard?

MS HESSE: Yes, paper and cardboard is included. You can put that into your bin, and we also have a separate depot out at the landfill which accepts that.

MR WEICKHARDT: I didn't hear glass.

MS HESSE: Yes, we accept glass as well, sorry. The materials go to Visy, Amcor and various others. I had Amcor up here only last week. They get quite a bit. Steel goes to Simsmetal, which has a local operation here, and Smorgon has just established an operation for steel.

MR WEICKHARDT: Are many of the materials, once they're sorted, trucked to other Australian cities?

MS HESSE: Mainly Brisbane and Adelaide. They tried a little earlier, a couple of years ago, to send it to Indonesia. Indonesia has some places up there, but it was very hard to police because if the organisation didn't have an office there, what usually happened was that they would say that it was damaged or it was contaminated, and then the operator had the cost of shipping it there but got no funding back, short of flying over to look to see if it really was contaminated. That is the reason why are different from Perth, who use Indonesia a lot. We use Adelaide and Brisbane companies.

MR WEICKHARDT: When you went out to the community and said, "We can do recycling but it will cost more money," did you quantify to the community how much more it would cost other than the material simply going to landfill?

MS HESSE: No, we didn't. We said it would be roughly half more, which actually bears out in our costs anyway. Another thing: you asked me before what our gate charges are. They're again some of the lowest in Australia; I can tell you that straight off. That is also why I mention the pay as you go principle here, because at the moment we're operating a very profitable operation, which has enough money left at the end to put towards future landfill planning and new projects, and at the same time we still provide a service at a reasonable cost so people don't have a financial reason to dump in the wider crown land area. For example, our commercial rate is $39 a tonne for ordinary waste and $110 a tonne for special waste. Special waste include things like asbestos and quarantine waste or higher level soil that needs special treatment such as immediate deep burial or some other type of pre-treatment before they can be buried.

MR WEICKHARDT: Angelika, where you've seen evidence in the territory of landfill charges being increased, perhaps because of tougher stances being taken about the operation of the landfill, are you saying you've seen direct correlations with illegal dumping going on as a result?

MS HESSE: Yes. To give you a good idea regarding collection, for example, we've just had a real example. In Darwin we have some indigenous communities who don't pay any rates to council because they own their area, or they do pay rates because they only have a particular lease. They have not necessarily received waste services in the past, because they've tried to operate under their own CDEP or whatever. A lot of these have come on board now. If I can just talk about Minmara and Kulala communities, there are 46 houses with about 200 people there. They had an annual waste bill from a commercial operator of $36,000. That was just for waste collection and disposal to our landfill. We've taken over, and with our rates they pay

short of $6000. We have high-rise buildings here which first had council exemption from waste fees. They wanted to provide their own bins. They're all coming back again because it's tens and tens of thousands more. You have to remember here, because of distance and the very small commercial market, with only a few operators, the prices are sky-high. So you don't have open competition like somewhere else.

MR WEICKHARDT: I can understand that entirely. I was trying to get a feel for whether or not you had experienced something that others have spoken to us about, and that is that, where gate fees or collection fees go up, you can sometimes risk seeing illegal dumping or littering going on instead.

MS HESSE: We haven't experienced that here. In Palmerston they don't charge anything at their landfill at all, and neither in the past did Litchfield separately. They put a small amount into the rates; they can't really specific how much it was. They experienced an awful lot of illegal littering on crown land, even though they had a free, open landfill. Here in the Darwin area it is very much controlled. We do have some dumping on crown land. You must understand our situation here. You go 10 minutes out and there is just nothing. It's too easy for people to do that. We get many people now who have not a lot of patience and dump us in. That has increased dramatically over the last few years - the number of phone calls we get about this person having done the wrong thing or that person having done the wrong thing. So I think it's more that just a cost thing, but it is certainly a reason why we try to keep our gate fees very competitive and affordable for everyone - to not have that happening.

I'm absolutely sure, even though our fees, as you probably see from the figures provided, are pretty low compared to elsewhere, a lot of commercial operators have gone to the small landfill out at Litchfield dumping materials and that's why they have a problem now with groundwater. So it's the industry which hasn't done the right thing, which is why these landfills are now closed.

MR WEICKHARDT: Thank you for that. Thank you very much indeed for your submission and for appearing at the hearings. Do you have anything else you want to say in conclusion?

MS HESSE: No, just that in conclusion I think it's a very good document. It gives a lot of information on waste management in Australia, and it was just those few points we wanted to raise so that is considered. It mightn't necessarily be the right thing to go all commercial. I know that these days it's really advocated but, particularly in areas like ours, commercial costs are charged strictly on people's means and then the community as a whole has to pick it up afterwards. Overall, I hope that our information for the NT is included as well, because it is so different

from planning all the way down to actual operation. Thank you very much.

MR WEICKHARDT: Thank you very much indeed.

MS HESSE: You're welcome.

MR WEICKHARDT: We'll adjourn briefly now.

MR WEICKHARDT: Our next participant is Plantations North East Inc. If I could get you for the transcript please to give your name and the capacity in which you are appearing.

MR YOUNG: Thank you for the opportunity to present. My name is Bernard Young and I am the executive office of Plantations North East Inc.

MR WEICKHARDT: Thank you for your submission, which we've read, but if you'd like to introduce that or make some opening comments, that would be helpful.

MR YOUNG: Thank you. Plantations North East is one of a number of private forestry development committees that operate across the whole of Australia, this one for the north-east part of Victoria. They are funded under a state and federal government funded program which has been running for 10 years, and that program is helping to implement the state and federal governments' commitment to expansion of plantation based resources which will ultimately have a transfer impact on the demand for solid wood products from being sourced in the past from native forests to now increasingly being sourced from plantations which are in the main established on private land.

The resources of these plantations obviously are significant natural solid wood resources, and our interest is in the fate of the transfer of those products from trees into finished products. Of course for more finished products and the processes of that there is a waste stream that forms part of that processing line, and I'm here to talk about the impacts of that waste stream as I see it in a regional context - 12 shires in basically a quarter of that part of Victoria outside of Melbourne.

The solid wood harvest in that area is made up primarily nowadays of plantation based products, and there is also some continuing native forest harvesting from crown land. In reality, the two main suppliers of those logs are monopoly suppliers in their sectors. A company called Hancock Victorian Plantations owns the majority of the plantations in that region, pine plantations in the main, and then there's a state corporate entity newly formed in Victoria called VicForests, which manages the harvesting side of native forests. Together they harvest over 1 million tonnes of logs per annum.

The first stage of processing these products is generally through sawmills. They have an efficiency of 25 to 40 per cent in terms of converting round logs into sawn pieces of timber. So you can see that 1 million tonnes at the first stage of processing has a large waste component. The good news is that in relation to plantations most of that waste product is chipped after the sawing process and goes on to be a source of supply for fibreboard products including paper, MDF and other panelboard products within the region. My desktop calculations show that, even

though over 1 million tonnes of solid wood product is produced and then consumed, mainly within the region, 60,000 tonnes or so is probably not accounted for by the industry, which I think is a pretty good achievement. Nonetheless, 55,000 to 60,000 tonnes will go to landfill, and there's a number of various landfills in the region, from small ones operated for local rural shires to larger regional facilities such as the one operated by the City of Wodonga. The solid wood component of those landfills is a significant issue for those councils.

Some councils locally have tried to deal with this problem by segregating that wood at transfer stations and the like and making that solid wood material available to local users generally cost-free to use as firewood. Firewood is also an issue within the region. There's a demand for firewood, which is currently being supplied from native forests. Government policies would see that supply dwindle over time, so there are possibly opportunities for waste to be diverted from its landfill intentions into a replacement resource, and it's pleasing to state that the councils in the north-east and the local catchment management authority have taken action to identify small rural locations where firewood collection depots can be set up. They are being supplied by some of this diverted waste stream and also by other naturally occurring wastes that councils encounter through their routine processes of tree prunings. After storm events and the like, regrettably trees will hit the ground, so this is also a way of trying to contain those. But it is a costly exercise to undertake those small-scale diversions. We don't have any actual figures for that, but it's something for which there's no apparent subsidy available, nor is there likely to be.

Costs to landfill are considerable. I had in my initial submission stated that there is a cost of around 25 cubic metres a tonne to a regional waste processing facility, and I have since been able to acquire some figures that update that. In a global sense, the city within which I live operates a medium level landfill, and the costs of running that collection and landfill operation is around $2.6 million per annum and the amount of material going into that landfill on an annual basis is around 20,000 tonnes. That is a very high figure of $130 per tonne per annum for operating such a facility. It asks the question in my mind: are there more efficient ways of either diverting that waste at source, which is the current state government's policy preference, or finding ways of intercepting that stream and using it at a place to minimise the cost of transfer of that material.

Those are briefly the submission points I wanted to talk to, and I'm happy to take questions, obviously.

MR WEICKHARDT: Thank you for that. I guess the impression is that all this is working reasonably well. You're getting signals saying that the cost of landfilling is reasonably expensive, so you're seeking alternative methods of using this material to create value. What is it that you're wanting governments to do or not to do that

would make your life easier or make the community better off?

MR YOUNG: I'm a bit ambivalent in thinking about this. The state government's policies have been to raise the bar in terms of performance of landfills, which increasingly raises the costs. Wangaratta is probably a certain level above, just into a new level of landfill category for which the EPA requires a certain performance level that's higher than for the next level down, the more local landfill. So I'm aware that our costs in Wangaratta are significantly higher than might be achieved in a larger regional centre or an urban centre.

The issue for a place like Wangaratta is that, with those high costs, we are probably more encouraged to seek to divert that waste before it gets into the landfill, so you could in that sense argue that the costs process that's imposed upon the city in a policy sense is working. But from my perspective the cost of disposal at $130 a tonne is far too high for the disposal of a product that's often valued at far less than that per tonne when it's going through its actual processing for products. To me there's an anomaly there that needs to be addressed.

I don't have an easy answer to that other than to say that, in the current situation, it's more likely that the city would seek to divert those streams before getting into landfill, and probably will continue to undertake the sorts of actions that we have done, which is - and this is typical of many councils - to use the transfer stations as a way of segregating materials and to encourage people to access those transfer stations and receive either subsidised or free access to some of the products that are going in there.

I think the industry, as we've already said in relation to plantation processing, is operating at a very high level of efficiency, so I don't think there would be further benefits in imposing higher costs on industry. I think the signals for the industry are pretty clear and they're responding to them.

MR WEICKHARDT: Certainly you will have seen in the draft report that we have suggested that state governments and the appropriate authorities should ensure that landfills operate to standards, ensure that soil and land pollution does not occur, and ensure that the amenity costs of living near a landfill are minimised. We think it is only reasonable that you as a citizen of the country should expect that you can live without those sorts of threats around you.

I accept the fact that to get compliance at a smaller landfill will cost money, and I guess there are then trade-offs between whether you have a range of small regional landfills or one bigger, more centralised landfill and transport the waste further to that. Is that an option in your situation rather than the $130 a tonne at one of these landfills to move the product to another, larger, landfill with perhaps cheaper gate

fees?

MR YOUNG: It's been looked at. Wangaratta is currently 60 to 70 kilometres distant from the larger regional landfill which is operated by an adjacent municipality. Currently I'm advised that the costs of transporting that are too high to justify the extra cartage distance. A more neighbouring shire has been able to come up with a green waste segregation system to take advantage of that landfill. So I suppose the question then becomes: do we have a way of revisiting the costs of these smaller scale landfills in the smaller municipalities to make it more equitable? My personal view is that the cartage distance is a factor that you won't be able to overcome.

MR WEICKHARDT: Alternative uses for the reside that you're talking about: you refer in your submission to heat and power converters. Has that been seriously looked at?

MR YOUNG: The scale at which those units seem to be established overseas and promoted in Australia is large. A five megawatt biofuels operation would probably require about, I'm advised, 75,000 tonnes of wood per annum. As you can see, our own figures show that the spare resource within the north-east region on its own doesn't justify that, and we're talking about a region that spreads more or less from Wodonga to Melbourne, so a distance of 260-odd kilometres. Again, I think that's not sustainable. We would probably need to see a new, smaller-scale generation of these sorts of plants before we could take advantage of that. Unless there were other sources of biofuels established through growing the resource specifically for that process, the problem I would foresee then is that, if you establish an efficient biofuels processing system, generally you would not necessarily want to accept a whole range of different wastes into it, so you would probably have to look at some sort of incineration as a component of such a plant in order to deal with some of the more intractable wastes that might be presented at the site.

MR WEICKHARDT: Yes. I guess, without knowing a lot about it, if you have a range of industries up there from MDF to fibreboard manufactures, it may be that they have also some waste streams that have calorific value that could be combined with the sort of residue you have and perhaps justify a central shared facility of some sort.

MR YOUNG: Unfortunately, no. Those plants are generally established with a heat plant on site, so they're already using that waste on their sites to provide them with both heat and steam.

MR WEICKHARDT: You couldn't provide some of your waste stream to go into those plants?

MR YOUNG: They would be very cautious about the sort of material that went in, because it would impact, obviously, on the costs and the management, the finetuning, of those plants. I've not been aware of any expressing any interest in doing that, but it's a possibility that could be explored.

MR WEICKHARDT: Is composting some of this residue - - -

MR YOUNG: Composting is attempted for the green wastes, but again that issue of segregation, and also of time, and then finding a market for those sorts of partially treated wastes is an issue for most councils, as far as I'm aware.

MR WEICKHARDT: Your members can't use that compost in their growing activities?

MR YOUNG: Generally the plantations growers have the advantage of processing the tree limbs and twigs off the site that's left behind in initial harvesting, and the plantation resource is generally quite distant from the major centres. So I wouldn't see it as a possibility that you would backload that material to those sites, no.

MR WEICKHARDT: I'm afraid I don't have any magic answers to the tyranny of distance or scale but, insofar as waste management and government waste management policies are concerned, I'm not sure I see any immediate insights from what you've told me as to things that governments should be doing more of or less of in this particular area, unless you can shine a light on that for me.

MR YOUNG: I suppose the point I would make is that potentially those medium-sized regional centres that have entered into this higher-cost waste treatment environment by dint of state government policies might welcome some ability to have some relief on costing.

MR WEICKHARDT: Are any landfill levies being applied in those rural areas?

MR YOUNG: Indeed there are, so there are some cost recoveries, but until recent times most councils have had a policy of wearing a differential cost. Most recently the city that I live in has decided to move towards full cost recovery of its waste and has imposed a 40 per cent increase in the last year and another significant increase this year to move towards that full cost recovery. That just underlines how much the costs of waste disposal have increased for the city by moving to meet the state's set requirements in relation to the management of landfill.

MR WEICKHARDT: Yes. Again, I think we would support the fact that these facilities ought both to operate to licence and to recover their full costs. That

provides some motivation for people to look seriously at alternative ways of utilising resources, which is an important issue in many people's minds.

MR YOUNG: Yes.

MR WEICKHARDT: Thank you very much indeed for appearing and thank you for your submission.

MR YOUNG: Thank you.

MR WEICKHARDT: We will adjourn now until 1.30.

MR WEICKHARDT: We will resume the hearings. Our next participant is Mr Peter Carroll. Perhaps you might explain in which capacity you're appearing here, as an individual or as - - -

MR CARROLL: I am appearing as an individual, yes, for sure.

MR WEICKHARDT: Thank you for your various submissions. I think I've seen two pieces from you, which you should assume that we've read, but if you'd like to make some introductory comments, that would be useful.

MR CARROLL: I suppose I should give some background about myself in terms of my contribution to this hearing. I've had a longstanding interest in waste and recycling during the 1990s, and into the 200s I ran my own metal recycling business for eight years. I was also in charge in the early part of the 2000s of all the waste the recycling in a small rural shire and, funnily enough, in the north-east of Victoria, which may have interested the last speaker that was here. I have worked in the past for the Environment Protection Authority in Victoria, for three years. I currently teach at Chisholm Institute environmental subjects. I also tutor at Monash University in systems thinking, and at present I also work part-time at a transfer station in the south-eastern suburbs of Melbourne. So I have some pretty close involvement with waste in Victoria. I also hold a master's degree and have conducted research into waste as well.

I suppose what I've done with the submission that I've put forward today is to try to summarise it for the sake of brevity. I've tried to look at things from what I could consider to be the meta point of view rather than the specific fine detail that some other contributors have made. I've looked at such things as optimisation. If we're going to optimise things, what I'm saying here is that there are certain products, if we're concerned about waste, that probably shouldn't be produced in the first place, so I've made that recommendation.

Along with or aligned with that, of course, is the issue of planned obsolescence, which is still very much alive and well in society and throughout our economic functions. I think if we're going to do anything about our issues with waste and the typology of waste, we really need to address planned obsolescence, because if we have to try to keep up with developing reuse and recycling for products, we're lagging behind all the time. We've had only in say the last couple of years a real thrust as regards e-waste, for example. I know, again from my own experience, we run computer systems through into landfill every day that I work there. They do not get collected, they are not recycled, and they are certainly are not reused. They're going into landfill constantly. For 20 years we've been talking about reuse and recycling of these things, but with planned obsolescence you can't keep up. It's too fast. So unless something is done about that, we're going to be battling.

Then, of course, I've moved on to discuss the issue of consumption. I don't believe you can separate the two things, which might strike some people as being an oxymoron, but I think it's a real problem that we're going to have to face. Mathematically it's going to be just about impossible to do anything about waste while we continue have consumption increase. I think I've noted in my previous written submission that even the Australian Bureau of Statistics have shown or demonstrated and confirmed that consumption has increased by an average of 2.2 per cent between 1990-91 and 2000-01. If consumption is going to increase, we're going to have a continual problem with waste.

Extender producer responsibility: I've taken a particular interest in that in the draft report because some people have commented on it. It's probably not as well developed in this country as it could be, and it is part of a complex arrangement with planned obsolescence that if you are going to get extended producer responsibility in this country, it will have to be lifted by several orders of magnitude before we can do anything about it. At the present time, and certainly from my experience in Victoria, extended producer responsibility would make absolutely minimal impact on the level of waste we're generating.

The issue of population is another major area of concern. If we're going to continue with the growth in population and the materially wealthy country, then we're going to continue to grow with waste. A practical example to give the commission: as late as Monday I had a builder come into the transfer station where I work. They're putting up 400 new steel frame houses in the south-eastern corridor of Melbourne and they want to know where to take all the scrap steel. If we're going to provide that sort of population growth, then we will have more and more waste all the time.

Technical solutions: I suppose I could be accused of being a heterodox here, but I have a real problem with technical solutions being used to fix what I perceive, and others like me, as cultural and social problems. I think technical solutions are good, and I have nothing against engineers per se. However, when we devolve ourselves into relying on their thinking to fix our problems, I think we're going to have an ever bigger problem down the track, because history shows us that one technical solution, one technical fix, will lead to another one down the track. These are cultural and social problems that we're dealing with as far as waste is concerned.

We can use financial disincentives and we can use some technical solutions, but the greater issue is how to change a culture. That's the problem. I've had a fair dip here, as I'm wont to do, and again I was interested in the last speaker - waste to energy. As a committed environmentalist - and I make an unabashed comment about that - I find nowhere in nature that the natural systems self-combust to release energy

to turn them back into something. Particularly in a country like Australia, where we have the lowest level or organic carbon in our soils of any continent on the earth, why on earth any organisation would consider turning carbon back into energy is absolutely beyond me. We have the poorest quality soils on earth here.
That's about all I'll say about my submission at the moment. I'll welcome questions.

MR WEICKHARDT: Thank you. You've covered a broad spectrum there. Whilst I'm not a biologist, I think I could say with confidence that there's a form of consumption of carbon and combustion going on inside your body right now that regulates your body temperature, so to suggest this never happens in nature or natural systems I think is probably erroneous. But that's beside the point.

MR CARROLL: I think we could debate that in relation to how the ecological system works. It's answer the maintenance of energy and the transfer of nutrient. It's not about combustion.

MR WEICKHARDT: Your body uses fuel to regulate your temperature.

MR CARROLL: Of course.

MR WEICKHARDT: In your grand scheme of things, what I'm interested in is who's going to make the call on all these things about what should be produced, how much we should consume and how big the population is?

MR CARROLL: I think one of the great points that was made in the draft report concerned the role of government. I think that's particularly critical, and I think it has to be the government. We have to see some leadership there. As much I'd like to believe we could, I don't think we can leave it to industry, but I think governments have to take the lead and have to have the fortitude to do it.

MR WEICKHARDT: So you'd prefer the treasurer to stand up and not encourage Australian women to have one for each of the family and one for the country? You'd prefer him to say, "Only have one child," or something, would you, to reduce the population?

MR CARROLL: I think if he's concerned about intergenerational equity and the maintenance of the Australian economy that would probably be preferable, yes. If you're going to get to a stage where we have both a sustainable ecology and a sustainable economy, we perhaps need to rethink that business of having one extra child, yes.

MR WEICKHARDT: Can I inquire as to how you've reached these conclusions? Is this a sort of intuitive gut feel or have you done lots of studies and modelling of

the consequences of these policies?

MR CARROLL: I've certainly done a lot of study on the issue of population and the growth of particular economies and then crashing and burning. There's ample historical evidence of economies that have done that and that have had ecological problems and then failed. Angkor Wat was one, the Romans were another. It was a great contributor to the destruction of their particular society. It also did no good for the Egyptian society because as they pulled out the grain out of there and took everything with it, there was no fertilisation for their soils. Hence we get desert. It happened in Mexico with the Spanish when they cut all the trees down to smelt all the silver. There is a lot of historical evidence out there.

MR WEICKHARDT: Would you be concerned about this not just in an Australian context but in a global context?

MR CARROLL: It is a concern in a global context, but at this point I would be more concerned about the Australian context, given the nature of this inquiry.

MR WEICKHARDT: So you want some sort of central planning scheme here to in, what, a Chinese style, limit the number of children people can have?

MR CARROLL: Not actually sticking with the issue of the number of children and population growth, but I have said in my submissions that we need perhaps a body similar to Standards Australia that will look at the nature and the type of products that come into Australia or are produced in Australia that ultimately end up in waste. There is research out there that shows that the average lifespan of any new product is only eight months right across the board.

MR WEICKHARDT: What's the basis on which they're going to make this judgment? Who's going to have the ultimate imprimatur to say, "This product is good, this one is not good," despite the fact that there might be some fairly poor or disadvantaged person who can only afford the cheaper product and your grand central planning authority might deny that person the ability to buy a radiator to keep them warm.

MR CARROLL: With all due respect, you're making it sound as though I'm advocating a communist state, and I'm not. We have ample regulation now in a lot of areas. We have an EPA in Victoria, we have other EPAs in different states that control and regulate, and a number of people have spoken about the pricing of landfills. Those pricing systems are arbitrary with landfill levies. Industry makes its own pricing structures as far as the collection of waste is concerned. They're all arbitrary. All I'm simple advocating is another arbitrary system.

MR WEICKHARDT: I guess, coming back to our report, you would have seen that we weren't supporters of landfill levies, whether they're arbitrary or not; that we were supporters of a system where landfills and any other form of waste treatment plant was regulated to avoid externalities; and that in a competitive environment one would have expected that the charges that those institutions set were based on a competitive environment and therefore had semblance to the costs involved.

MR CARROLL: I agree with the recommendation there in principle, but what I'm suggesting is that, if we're going to do that, we need to attack the problem at its source rather than at the end of the pipe, which is what we continue to do. The issue of the landfill levies as far as the public is concerned is only a small part of the picture, because the landfill levy forms only a small component of what the average person pays when they go to a transfer station or a landfill. The pricing structure across Australia, let alone Victoria, is very diverse. I know from my own current experience people are paying a price to come through the gate, and I'm sure that the waste company - and I obviously won't mention its name - would be making substantial money because it's paying for material that gets mulched; it doesn't go to landfill. So someone is doing pretty well out of it.

MR WEICKHARDT: You say in your submission that you've previously argument with Victoria governments against increases in landfill levies on the grounds that that would increase the illegal dumping.

MR CARROLL: The illegal bit, yes - littering.

MR WEICKHARDT: Have you actually seen that sort of thing occur, and have you seen, on the other side, any impact of the government what it thinks they're doing, that is, to invest those levies in improving environmental outcomes?

MR CARROLL: I can answer that. I know you asked that question of the lady from Darwin earlier. When this issue of increasing the landfill levies first came up, as a technical officer in a rural shire and also with rural councillors in the north-east of Victoria, we tried to convince the hierarchy of the EPA and EcoRecycle that they would be contributing to illegal dumping. It was already an issue along the Murray River for those councils that bordered the river. They said it wouldn't be an issue; we said it would.

Three or four years down the track, I am sure the people from Victoria here have all seen the advertising with the litterbug that's going to grab you or the echidna that's going to grab you if you're throwing stuff out of your car, because all of a sudden they've realised that litter is a problem. We said it would become a problem, particularly in rural areas, and it has become a huge problem. There's dumping all over the place, and the EPA have now recognised that. But they didn't want to make

the connection between increasing the landfill levy and the consequent littering which occurred.

MR WEICKHARDT: How would you suggest that this issue be tackled? There are many who argue - and there are a variety of ways this can be achieved - that the cost of disposal on landfill is so cheap that it encourages people to throw product away and not to recycle, reuse or conserve. We've advocated as one form of approach charges not only at landfill but at other facilities that are treating waste, and I think it's probable, without knowing for sure, that those measures would increase the cost of the disposal of waste, because on the one hand people would argue is a desirable thing because it encourages more recycling and perhaps reuse, but, on the other hand, we have this effect you talked about, where people evade a proper disposal route and use an illegal disposal route.

How would you suggest that those two desired outcomes - that is, no illegal disposal and yet appropriate charges for disposal - with both making sure that disposal was managed properly, would not leave nasty consequences for society, and also that the charges reflect enough of a signal that people think carefully before they throw things away?

MR CARROLL: It's going to take a suite of measures and, as I'm suggesting to you, the answer doesn't just lie within the economic realm. It will lie within the cultural realm and a lot of emphasis, certainly in Victoria, has been placed on education. That's fine, but we can all be educated but still end up being criminals, so to speak, and throw stuff out of our cars or dump it illegally.

Personally, if we're talking of the economics side of things, as far as illegal dumping is concerned, I think the penalty should be made far greater - far greater - and that we should even broaden the scope of, on a policy level, what actually constitutes illegal dumping. For instance, there are organisations and companies that will dump on their own site and impact on groundwater and the soil itself and contaminate it. The argument would be there that it's their site. I would argue that they're impacting on a greater scale.

MR WEICKHARDT: I would have thought the law would argue that too.

MR CARROLL: It depends if they can be found, caught and recognised. That's the difficulty. In the defence of the EPA, they can't be everywhere. It's very difficult for them to do that. So on the one hand I would argue that the penalties for illegal dumping and littering should be substantially increased to get that message through. That may work in return, because that becomes part of general revenue, and maybe then we could lower the landfill levies. Maybe we could work that way, and that would then encourage people to bring stuff into a landfill or a transfer station. On a

financial level it may work that way.

MR WEICKHARDT: Apart from education and the fine, what else in the area of culture would you do that would give better outcomes in terms of littering or illegal dumping?

MR CARROLL: One of the particular products - and we've all seen it, I dare say, in this room - that we see a lot of that are dumped in this country, of course, is tyres, for example. Where I work, if you want to bring a car tyre in, it costs $6 a tyre. Yet there is already a levy, I'm led to believe, within the purchase of a brand new tyre to contribute towards its recycling. But, unfortunately, that system is not working.

As far as culture is concerned - both on the financial level and the cultural level - the vast majority of people don't even know it exists and that, when we get back to EPR again, the tyre industry itself should be taking responsibility because every one of us has already paid to contribute towards the recycling of that tyre.

MR WEICKHARDT: I think at the moment the scheme that exists, at least in Victoria, is that there is a charge when you change your tyres over for the disposal of the tyres. There's a discussion going on at the moment about an EPR scheme with an advanced fee.

MR CARROLL: Yes, I'm aware of that.

MR WEICKHARDT: But that's not in place at this stage, to the best of my understanding. I think it's at the changeover point that the current fee is extracted, and I guess if the depot that changes the tyre decided either not to charge the fee or to charge the fee and illegally dispose of it, then you've got the problem you referred to.

MR CARROLL: Then maybe we could be a bit radical, and perhaps we could the penalty on the manufacturer of the tyre.

MR WEICKHARDT: Maybe, but that's a pretty indirect method of attacking the problem, isn't it? The problem is not with the manufacturer of the tyre; the problem is, going back to your cultural issue, with the culture of the person who decides to dispose of it incorrectly.

MR CARROLL: Yes, perhaps. But then also the organisation that manufactures and sells the tyre is part of that culture as well, and I think at some point, getting back to your earlier question, someone has to bite the bullet. Someone has to take control, and that's why I suggested that an organisation similar to the way Standards Australia developed standards for products and things that we use in this country, needs to look at the nature of products as far in terms of their contribution to the

waste streams.

MR WEICKHARDT: But what are the tools that you would, as government, charge that body to use to come up with outcomes that you think would be preferable, recognising that you have a responsibility to all the community, not just people who can afford to buy the best product or the most expensive product but to people who are struggling who can't afford them?

MR CARROLL: I recognise that, but it depends how you measure cost. If the measure cost in terms of the value or the cheapness of something as opposed to its durability or its utility, and you amortise the value of something over its life term, then some of these so-called cheap products are actually expensive.

MR WEICKHARDT: That might be true, but if I'm a 90-year-old pensioner and my radiator has broken down and I can't afford one that's going to last for 20 years, maybe I would be more motivated to buy one that would last for five years. Is that something you'd want to deny?

MR CARROLL: I wouldn't want to deny that, but that question is bordering on emotional blackmail, I feel. I think at the same time that product has to be able to demonstrate that it can be dismantled and its components reused in some way, shape or form before it's even put on the market. Humans are particularly ingenious, and I'm sure, with the quality and the calibre of the people we have in this world in the science and engineering field, we can do that. That's why products generally, after their initial impact on the market, become cheaper and do better jobs. That can be done over time. We're particularly innovative.

What I'm suggesting is to actually plan that obsolescence in with a cheap product that is bound to end up in a landfill is not the way to go. I think if we look at the durability, the utility value, even if it is cheaper, we can still have good quality cars and then we can have a Rolls Royce, for argument's sake, in terms of finish and the way it's put together. Not everyone is going to get a Rolls Royce, but we can certainly have motor vehicles that can be dismantled, like a Volkswagen, for instance, and still be good quality and relatively cheap in comparison.

MR WEICKHARDT: You talk in your submission about your concerns about over-consumption and the fact that, I guess, increased wealth has caused people to consume more and more. I understand those concerns, which are shared by lots of people. We probably all drive around the place and look at examples that horrify us individually but, again, how are you suggesting that that be controlled or impacted? Are we going to have a person that determines that you can have a house that's 20 squares but not one that's 40 squares, or a car that has two doors but not four doors? How does this work?

MR CARROLL: It may be the issue of the house in relation to size, and that's been argued numerous times before, but if you talk about the car thing, I'm not so much concerned about the number of doors it has. But I might be concerned about the plethora of cars that we have available to us as consumers. Do we really need that much choice, considering that with a lot of those motor vehicles, in their componentry, we have difficulty recycling the plastics in them, reusing them, dismantling them or repairing them, which is perhaps more to the point, and keeping them on the road. That would concern me: do we really need such a huge variety of motor vehicles available to the public?

I dare say if you said to a number of people anywhere at any time, "Could you list 15 or so different models and makes that are available at the moment," they might struggle, and I'm pretty sure there would be a lot more than 15 makes or models available at the moment.

MR WEICKHARDT: Something like 140, as I understand it, but I think if you went to consumers and said, "Would you like more choice or less choice?" most consumers would probably say, "I like choice."

MR CARROLL: Yes, but there's only so much choice you can cope with, and if you haven't got the choice it doesn't matter. If it's not there it doesn't matter. It's not going to be an issue.

MR WEICKHARDT: So who decides?

MR CARROLL: I come back to it again: I think the government, as the final arbiters and leaders of this economy and this nation, needs to do that. We need to look at that.

MR WEICKHARDT: Okay. You said something in your submission about recycling which may have increased simply because the community has been provided a convenient service and that it may have tapped a latent demand that already existed. How do you think the community's interest in recycling can be gauged and should be gauged? If the community were asked to pay explicitly for recycling, how much do you think they're prepared to pay in this area?

MR CARROLL: I don't think you can quantity that figure, because it comes back to what people value, and it's a value system which, again, would delve into the realms of what we value as a culture. We will pay a financial cost up to a point, but again different shires, different locations, have different cost structures in how they're actually worked out. The thing about the recycling, and particularly the kerbside recycling, is that one of the functions that will help reduce waste is the convenience

factor. That's where recycling at a kerbside level has been so good. It is a convenience thing. You're provided with the bin, you're told what to put in it, and by and large the majority of people put the correct materials in there, or materials, shall I say, that can be recycled according to the recycler.

Even in my own research that I did up in the north-east and the Shepparton area, over 20 per cent of what went into the MRF went back out to landfill from kerbside recycling on a daily, weekly, yearly basis. So in terms of the dollar value of what people are prepared to pay for, we need to be careful that we don't run back into that same problem again with littering and dumping that we put the fees up so much that people say, "What the hell. I can't do this. It's all too much" or "I'll put it in my neighbour's bin," which has been known to happen on numerous occasions.

MR WEICKHARDT: Yes. I guess at the moment we have recycling that's being driven to greater and greater levels by the actions of government, local and state. I don't know whether you were here when we had the folk from the City of Darwin on the telephone, but they were saying effectively they cross-subsidise recycling significantly from the profitability of their landfill operations and that's the way that they can, if you like, justify it. The risk is that recycling can be good to a point that it can be carried too far and, as you said a moment ago, it doesn't make a huge amount of sense to pick up a whole lot of product for recycling and then put it into landfill afterwards. In your scheme of the world, how is the right level of recycling determined and how should governments try to manage that?

MR CARROLL: I know there's been a lot of discussion about it and a lot of argument. I think one of the areas that really needs to be trialed, certainly in other states - and it did work in Victoria for many years - was CDL. We did have it here many years ago, before kerbside recycling came into place, and it was fairly effectively. So I think that's one particular area that perhaps should be given some kudos, because it's worked for a long time in South Australia, and it's worked that well that we've even had semitrailers of aluminium cans leaving Victoria and New South Wales and heading to South Australia to get the money back. So I think people who say that it doesn't work and there's no value in it perhaps need to look at the reality of what's occurred.

MR WEICKHARDT: We're in that group of people, and there's a considerable section in our report about that. We've tried as hard as we can to analyse the costs as well as the benefits, and we've come to the conclusion that the costs exceed the benefits.

MR CARROLL: I would have to diverge from you there, I think. I think it's worth the effort to try to put it in place in other areas and just see how it works. One of the comments that I would make in relation to the recycling, though - and I have said it's

a convenience factor, if recycling is put forward - and I'm as ardent an environmentalist as you'll meet - on environmental grounds, from the research that I did in rural areas, if you don't calculate the embodied energy of the collection vehicle and the reuse machinery that you need in MRF, I dare say you would actually come out with a loss on and environment level. That's where it comes back to that question of value again. Do we value it more? In a typical recycling truck the drive train is made in the United States. It's a Perkins engine. Where did the iron ore come for it? It probably came from the Pilbara.

We have all these movements backwards and forwards. We have cabins made in Western Australia, for example, trim that comes from Asia, before we even put the truck together to pick the plastic bottles up. So I think from an environmental level we need to be very, very careful how we assess these things. The convenience factor certainly works well, but if we were to make people pay financially, coming back to your earlier question, the true value of that recycling - - -

MR WEICKHARDT: Or the true cost?

MR CARROLL: Yes, the true cost, if the factored all the energy in that's embodied in either the MRF or the vehicle and all the maintenance involved and where the oil came from, you might be looking at $150 on their rates. When I worked in a rural shire it was $160-odd just for the garbage and it was about $45 for the recycling. That was the split for the kerbside service. So you might find that the recycling service actually goes up to the level of the garbage service, and that would frighten people. They would think twice about it then.

MR WEICKHARDT: But if those are the true costs, taking into account all the factors you mention and all the resources that are being used, why don't you think people should be made aware of that?

MR CARROLL: I think they should. I'm not saying they shouldn't. I think they should. I think there's been a huge gap there. That comes back to the education issue. I think people are educated only as much as some people want to educate them.

MR WEICKHARDT: We had some folk from the paper industry here yesterday, and they were musing over this rather contradictory situation in that we're frequently told Australians love recycling and they're very committed to recycling but, the paper industry say, they struggle to sell recycled product in a retail outlet; if somebody goes into a supermarket and has a choice between some toilet paper which is absolutely white and pristine versus some material that contains recycled fibre, the recycled product doesn't move from the shelf. Likewise, they say if you come to copier paper, if there's one that's slightly less glossy and slightly less white which

contains recycled fibre, people don't generally choose it. How do you think you reconcile this sort of supposed desire to recycle and yet a consumer unwillingness to use recycled products?

MR CARROLL: It simply comes back to what I said earlier about people's values, and if we're going to measure for measure look at things on a financial basis, the virgin material, the clean Reflex copy paper - I hope no-one is here - will be cheaper than the recycled version, and the same with the toilet paper. That's where I'm suggesting that maybe there needs to be some forced price differential there to give the advantage to the recycled paper. If we're going to give financial incentives and disincentives in that respect, that needs to be enforced in that regard to give them that equity.

The other issue, of course, is not so much with the toilet paper but maybe with the photocopying paper or the printing paper - whether or not the machine that they use is able to come up with a good enough quality copy or printed document through using the recycled paper. That's an issue again where I'm asking: do we need to look at the machines? Xerox, for instance, have very good machines that will take Xerox Green paper, which is largely recycled paper. They've shown the direction and they've gone out there and done it, but I don't think everyone has. They deserve all the compliments in the world for doing it.

MR WEICKHARDT: But you seem to be suggesting that when push comes to shove and a consumer comes to make a choice as to what product they buy, they actually need to be incentivised to buy recycled product. You don't think that this innate supposed desire for recycling will translate into a willingness to pay a premium for a product or an acceptance that it's perhaps not as white as the virgin product?

MR CARROLL: I think it's a similar situation to the people that buy organic food. Only certain people will pay the premium to eat organic food, whereas the vast majority of us, myself included, will more often than not go to a supermarket and buy non-organic food. If they want that recycled paper to be used and not end up in landfill, which it may do - and I certainly know how much goes out of the transfer station I work at - maybe there needs to be some incentive there. If we're suggesting as a community and as a society that we're all in favour of recycling, I'm sorry, but I'm suggesting that from where I'm coming from the reality doesn't depict that.

MR WEICKHARDT: Okay. You make a point that you think using waste to generate energy doesn't mimic natural processes, and I guess I beg to differ about that. But putting that to one side, given the fact that some materials are collected, particularly those going to a MRF, and some of them can't at this moment be recycled beneficially and therefore end up going to landfill, don't you think it would

be somewhat more sustainable to consider sending some of those materials to a waste-to-energy facility and displace the use of fossil fuels to generate electricity?

MR CARROLL: I don't believe on the research that's been conducted that we would get a sufficient quantity to do it. Even the last gentleman who was here, when he spoke about the timber, said they wouldn't have a sufficient quantity to do it, and particularly in Australia we face the tyranny of distance, no matter where we are, in transporting that material to a location where we can burn it to generate energy. At the facility I believe up in Wollongong where they've tried to do that for years now, it hasn't functioned particularly well. They've had all sorts of problems getting enough material that can burn sufficiently in a sufficient length of time to generate enough electricity. It's been a real issue.

MR WEICKHARDT: The Wollongong facility certainly, as I understand it, isn't a happy experience, but there are waste-to-energy facilities operating internationally that are supposedly environmentally very benign.

MR CARROLL: In areas where there are huge populations, and we're talking about Hong Kong or Singapore. We're certainly talking about concentrations of populations far and away bigger than we have in Australia, and hence the volume of material that's being generated. If we were to try to do it in Australia, again I would suggest that you're pretty much limited to either Melbourne or Sydney, and possibly Brisbane. We would have cost difficulties there in accumulating sufficient material.

MR WEICKHARDT: I accept the fact that they're capital-intensive facilities and they need a fair volume. We've had people from the cement industry come to the hearings and indicate that there are good examples of cement kilns that will take a range of products. Tyres is a classic example, and OCs in countries that I think are every bit as concerned about their environment as we are. Places like Sweden have a very high use of that sort of embodied energy rather than those products going to landfill.

MR CARROLL: Yes, that's the case, and we have sufficient technologies now - as I said earlier, we're particularly innovative and very clever - to turn tyres into something else before we burn them. However, I agree, particularly with the cement industry - and this is where I think we need to be fairly discerning and discriminating - it's probably a good result. We have so many waste tyres around the country as it is, and with their technology and their boiler systems, it's a ready use for waste tyres. But at the same time a lot of other uses and a lot of other technologies are available that can turn tyres into other product, if we could gather them all rather than their being dumped.

MR WEICKHARDT: I think our position in the draft report was that the problems

associated with tyres in landfill - and I understand that they're not easy to deal with in landfill - are theoretically overcomable by the Victorian requirement to have them shredded, and once they've been shredded they can be used either as a form of energy or in the form of something that's subsequently made into bounce mats or fabricated into products that use that rubber, or in landfill. Any of those applications are possible, but the first step of shredding the tyre would seem to make sense in terms of avoiding the risk of fire and illegal disposal or them floating in landfill.

MR CARROLL: I'm not quite sure what you're suggesting there, though.

MR WEICKHARDT: We were trying to suggest that the marketplace should determine ultimately what the destination of those shredded tyres is once they've been put in a form that is benign in a landfill. If there's a higher-value application, whether it's to raise energy or to be fabricated into a product, then those applications should be revealed by the marketplace.

MR CARROLL: Yes, but I think also a little bit of incentive could be shown. The technology is very expensive even to turn them into some or other form of mat, a driveway, playground equipment or something like that. It's not cheap technology I'm talking about. But certainly if you use the example of waste to energy in other countries, they also have the facilities and the availability of technology that can turn car tyres into other product prior to going to landfill or prior even to going to a cement kiln.

MR WEICKHARDT: All right. Thank you very much indeed for your submission. It has raised a number of pretty challenging issues. I'm pretty sure that we don't agree with all of them, but you've provoked us to think about some of them in a different way.

MR CARROLL: Thank you.

MR WEICKHARDT: We'll adjourn for a few moments now.

MR WEICKHARDT: Our next participant is the Plastics and Chemicals Industries Association. If you could please give your name and the capacity in which you're appearing for the transcript.

MR BURY: Certainly. My name is Peter Bury. I'm the director of industry development for plastics for the Plastics and Chemicals Industries Association.

MR WEICKHARDT: Thank you for your submission. You might like to make some introductory comments and then we can move to questions from there.

MR BURY: Certainly. PACIA is the peak body that represents the chemicals and plastics sector operating in Australia. The industry is quite diverse. It covers off most of the major manufacturing-type sectors. The annual turnover of the sector is about $24.5 billion, with a direct employment of about 81,000 Australians.

It has been helpful to the debate in Australia generally for the Productivity Commission to be going through the processes that it is. It seems that we have a long way to go in having a common understanding about some of the things that we grapple with but, in watching the debate and certainly in reading the transcripts, I think we're getting closer to having more of a common valuation and therefore a better chance of a commonly accepted outcome.

I suppose there's a couple of things that are important to us. One is the area of national consistency. Many of our companies operate in various parts of the country and operate across a range of jurisdictions and also have products that are used nationally. So national consistency is something which is important. There are a number of elements within that. Industry has a lot of capability to help with policy debate. Industry has a lot of expertise about the products and the technologies which are used to manufacture those products, and has been doing waste management for some.

I think industry is also very conscious of the community licence to operate, and that's something that we see as an obligation, certainly as an association. Our members and our board take that right very seriously, and we see the types of debate around sustainability, sustainable development and the types of themes discussed in the commission's report, reflected in the ways the companies operate. So the triple bottom line concept really does take on a reality with a large part of the manufacturing sector, and certainly our sector.

We've looked at the commission's report. We haven't chosen to respond to all of the areas. It's a comprehensive report and we've certainly looked at a lot of difficult areas. We've tried to take our response back to 10 key areas. In general we agree with the majority of the points which are made: the importance of national

consistency, the importance of a broad benefits based approach and a policy paradigm. We also recognise the challenge, as have others, in trying to define resource efficiency. In reading some of the transcripts we see the debate that's gone on about how you value. I think it's fair to say that you can have commonsense when you have common knowledge. It seems to us that there are a range of values, a range of attitudes and certainly a very broad range of information which people use to make decisions. We hope that our comments and our responses to the commission can inform the debate and can help broaden it where it's helpful to, and give it utility.

Among the areas that we've chosen to respond to in a policy context are the net benefits approach and certainly the waste hierarchy - we think the waste hierarchy is central to guiding a lot of decision-making; target-setting; certainly energy from waste, a theme that was discussed with the last speaker; tools of information; plastic bags; the extender producer responsibility; and marketplace levies. They are the areas in which we have a response that we hope will contribute to where the commission sees the report going.

They're the opening remarks. If it was helpful, we could go individually and perhaps touch lightly on some of the responses, and then get into some broader or deeper questioning.

MR WEICKHARDT: Why don't we move to some questions and hopefully, if you feel at the end of that that we haven't covered some territory you wanted to cover, you can come back to it. Can I start with the waste hierarchy. I must admit I was somewhat gobsmacked by reading the first sentence and the last sentence in the section under Waste Hierarchy. The first sentence says:

> PACIA supports the PC's view that the waste hierarchy provides a valuable tool for guiding general decision-making.

That wasn't our view. In fact, our view was quite the contrary. The last sentence in that section says:

> The commission's draft recommendation 7.1 that the principles of the waste hierarchy should not override sound policy evaluation principles based on a net social benefits approach has PACIA's support.

I have to say you've totally confused me. What is that you're advocating about the waste hierarchy.

MR BURY: Thank you for that feedback. If we've misinterpreted the commission's finding, we're certainly happy to go back and look at that, and look at our processes for providing that sort of information. In effect we're essentially

saying that the waste hierarchy does indeed provide a valuable framework for decision-making. We think it's been helpful when we've worked with government agencies, other parts of industry and community groups that there's a common method of valuing things like embodied energy, how strategies are implemented. We think that as a general guide it's a useful thing to have in place and it's a useful thing to retain and keep using.

MR WEICKHARDT: I guess our problem with it is that there are so many cases where this general guide gives you the wrong answer that, if you're looking at all the costs and all the benefits, that its rigorous adoption and use and its application by some as a sort of article of faith is quite dangerous. It can give quite the wrong answers in certain circumstances and in our view has led to some quite perverse outcomes.

MR BURY: The other thing that we would say is that a general guide is a useful thing to have in place. There needs to be some degree of general guidance, but with specifics they need to be judged on merit. I think that general approach provides the range of people involved in the debate with a general framework but, for example, with waste for energy, we would see that you can work through reducing the amount of products that are being used or reduce the volume which is available for treatment. Mechanical recycling up to a point works and has limits, but there are certainly are limitations there.

We tend then to move beyond energy recovery generally speaking in Australia for a lot of products, then we go straight to landfill. We see that landfill has a role but landfill locks up some useful energy. So the opportunity of utilising that embodied energy, energy from waste programs, we think is useful.

So our opinion would be that the waste hierarchy is generally a good guideline. The concern we have is that energy from waste isn't considered as something that is complementary to the waste hierarchy. We would see that as a guiding tool. It's useful, but things still need to be judged on their merits. Sometimes when they're being judged on their merits, I come back to the point that often we need more information to be able to make those types of decisions.

Let me take the discussions before, for example, on energy from waste, about their use in countries overseas. We had a look a couple of years ago, for example, at countries that used energy from waste. I spoke to our colleagues - we're as an industry association plugged into the global plastics centre - from Plastics Europe. They were about to go and see one of the German Green Party councillors and they were going to try to have a conversation about waste to energy. They knocked on the door and went in, and they got a resounding welcome because they had the feeling that waste to energy was something that was good; it complemented the other type of

waste efficiencies.

That was good, then we had a chat to our colleagues in Canada, who use some waste to energy but it's not mainstream. They could see the lessons that had been gathered in Europe and understood that, where it was used, it was used well and it was generally accepted by the population. The question we then have is: if it is a useful thing to have and if it is complementary to the waste hierarchy, how does one introduce it to a country that doesn't yet have it?

Where the Canadians ended up, it's our understanding, is that there was one particular application where providing energy in a remote location to collect residual amounts of a mineral was a good application for it. It was okay as long as it was well away from everybody else. As to introducing it, even with that wealth of information that they had about it, the community still had concerns, government policies reflected those concerns, and so they found it difficult to introduce. There's still work going on in places like Canada, and I think in part of our submission we mention the integrated solid waste management model which the Canadian Plastics Industries Association has developed. I think that's useful for looking at where it fits into the general scheme of things.

So I suppose our position would be that if it is useful and it is complementary, then we need to understand perhaps two things. We certainly need to understand issues around technology. I note the point made by the previous speaker about critical mass and size and volumes need to feed, and I think that's an appropriate thing to consider, but we also need to have a strong understanding of community concern and we need to address that as well. So a technology solution in a social context - we really need to consider both of those things - is some type of change in the way that we make better use of residual materials and in the way their embodied energy is adopted in the future by Australia.

MR WEICKHARDT: You say in your section under Energy from Waste:

> It will be valuable for Australian communities, companies and governments to understand where this same concern -

about those sorts of facilities -

> has been acknowledged and allayed overseas in locations where communities use energy from waste as part of their waste management options.

What are the lessons from overseas that have allayed community concerns?

MR BURY: Certainly we're in the process of having a greater understanding of that. Energy from waste is something which I think even five years ago had been tried and we had perhaps moved on. Certainly members of our association and some governments have a renewed interest in it, so we're at the earlier stages of doing precisely that evaluation.

In talking to people who work in those countries overseas, it seems that better education is need about the emissions - the fact that the emissions aren't toxic - trying to provide people with reassurance that they are in fact good clean facilities and that they're not about burning rubbish. That's the other issue which we debated last month at a master class which was called Energy from Waste or Wasted Energy: do you call it waste from energy or do you call it energy from waste? Even that contextual setting says: are you actually burning stuff or are you retrieving the energy? Are we valuing the waste or are we valuing the energy? It's that broader dimension that we're also trying to bring out.

MR WEICKHARDT: Okay. You talk about target setting and you say:

> PACIA's policy of "Eliminating plastic waste to landfill using Supply chain stewardship" provides an example of an aspirational goal.

The question is: why do you have that as an aspirational goal?

MR BURY: I think there's a couple of answers to the question. First of all, if you look at energy and resource efficiency and waste from that broader perspective of sustainable development, how much material and how much resource we have left, it allows you to do a number of things. If we took, for example, the position that plastic blocked up in landfill doesn't retrieve or utilise the residual energy and it doesn't make a contribution to offsetting fossil fuel deposit uses, then not having plastic in landfill is a desirable goal.

MR WEICKHARDT: It is provided the energy required to extract it from landfill or sort it from landfill and transport it to wherever you're going to recovery the energy from it isn't in excess of the energy you recover.

MR BURY: I agree.

MR WEICKHARDT: So having an aspirational goal in Alice Springs of eliminating all plastics from landfill might actually not be all that smart in that situation.

MR BURY: I think what it allows us to do is to have a debate about what is useful in what settings. You're right when you say Australia is a large place and we have

diverse communities. For example, one of the lessons out of the National Packaging Covenant and other forums in which we're involved was around the use of the term "best practice". Best practice for some collection systems in urban areas may well be best practice, but it's not necessarily best practice in remote communities, for example. So I think your point is well made and we would agree with it.

The point that we were trying to make, though, is that aspirational goals provide you with a valuable direction in which to move. Often what we've found is that people had a lot of concerns, a lot of good ideas and a lot of good opinions about how to deal with waste, and clearly there's an ongoing concern about that. PACIA was involved, and remains involved, in many of those areas, but it seemed that, without a general thrust or a general direction, a lot of those ideas ended up scattered and diffused. We figured it was better to try to galvanise and bring them together and to allow them to build into something of value rather than having a diffuse debate. So we chose fairly deliberately to have a policy that said we would strive to eliminate plastic waste from landfill. We spoke about supply chain stewardship because, as our report reflects, we believe there's a lot of capability about materials, technology and processing within industry that can be applied to that solution.

What are the outcomes of that? The outcome of that is that people were alert to what we were saying. They saw it as something which was generally useful. There were some groups, certainly, who wanted specific targets locked down and thought that we hadn't gone far enough, "Okay, PACIA has come out with what appears in some people's minds to be a bit of a motherhood statement. What does it really mean? You need to lock down that intention with some very specific targets."

We thought it was helpful to set an aspirational goal because it then allowed things to line up behind it. Examples of that were working with, for example, Sustainability Victoria, where we have a partnership program to look at industrial and automatic plastic wastes. It brought together the thinking, it provided a focal point so that people could bring together their ideas and work cooperatively rather than a lot of separate organisations working diffusely. So far we've seen that galvanising of opinion and that drawing together of ideas as having been valuable.

MR WEICKHARDT: Thank you. You talk about the fact that you've been thinking about the so-called environmental break-even points and you say:

> PACIA, EPA Victoria and Sustainability Victoria are developing and applying life cycle analysis tools which support companies to improve operational efficiency and performance.

Has any of that work been published? Are we able to sight any of the work that's been done in that area?

MR BURY: Certainly a lot of the work is in development. Certainly some life cycle studies on individual products have been done. The inputs into those life cycle analyses as a final report, which is a four-stage process, requires an input from what's called a life cycle inventory or an LCI. Australia doesn't yet have a fairly broad and comprehensive life cycle inventory of the products which are made here using the local inputs of water and energy, for example. So the reliance has been to default back to either European or American products, or life cycle inventories from those countries with those inputs.

We see that, to progress the debate and to become more informed in how we make those types of decisions, we need to understand what, if you like, the footprints of local products are. So, whilst we could provide the commission with examples of life cycle analyses that have been done - they're publicly available and we'd be happy to forward them on - the part of the exercise which we're currently involved with is in building those life cycle inventory tools which will be able to inform and assist the future debate and decision-makers.

MR WEICKHARDT: Who is doing that work? Do you have a consultant doing that work or is PACIA doing itself?

MR BURY: PACIA is part of work with organisations such as the Victorian EPA and the CSIRO.

MR WEICKHARDT: Certainly if you could provide us with some examples of what you've done, that would be helpful.

MR BURY: Certainly.

MR WEICKHARDT: Turning to the topic of plastic bags, you say:

> Some of the responses observed reflect the importance people attach to acting on environment issues - choices made about plastic bags provide personal action where they may otherwise feel they have less control.

I guess the issue is, when people make those choices, what substitutes they use to complete all the applications that plastic bags now fulfil. People point to green bags and say they may have overcome the need for people to have plastic bags in the supermarket but, as I think your studies have indicated and others have too, a lot of plastic bags are reused for other things, and those other applications need to be satisfied by some alternative mechanism.

The question is in terms of the sort of studies you say you've done in this area,

and you say you've -

> commissioned work to identify and report on the facts regarding plastic bag usage and impacts as well as options for management based on knowledge and data. This foundation has provided a basis to guide future decision-making.

Again, can you provide us with copies of that. We tried our best at the time of putting together the draft report to understand better the analysis that had been done and to try to identify what issues a proposed ban, for example, was trying to tackle. I must say we came up fairly short with facts and objective studies here, so if you've commissioned work in that area and you've got facts, we'd love to see it.

MR BURY: Certainly, two comments: firstly, PACIA was part of the group working with the National Packaging Covenant and also, as it was then, Environment Australia, now DEH, to put those works together. We can forward those reports to the commission, yes.

As to the other point - and perhaps you're referring to perverse outcomes - we would agree that replacing one product with another is not necessarily a net benefit outcome. Our observation so far would be, for example, using the waste hierarchy as a guide, that there's been a 45 per cent reduction by major retailers, so there's been a reduction strategy. There's been a very high cultural reuse. Our last understanding is the reuse of plastic bags that people have in their houses is something 60 to 70 per cent. That's fair well culturally understood, and they're used for a range of functions such as waste management for household waste storage and, interestingly enough, litter management such as dog poo. Local councils often now require people who are walking dogs, particularly in beach areas, to carry plastic bags or similar to pick up after their dogs. So they have a high reuse rate.

There has also been an improved recycling rate and more is possible. In fact, a Victorian company here, Detmark Poly Bags, a bag manufacturer, has worked with another company in South Australia called PGS to recycle old plastic bags back into new plastic bags, and that appears to work quite well. Clearly, a proportion become litter, which is very unfortunate. In the range of 1 and a half to 2 per cent become litter. 98 per cent don't become litter, and it's the utility and the secondary uses that we need to consider, because if removing bags with those secondary uses isn't considered, we may end up using more material and have a more perverse outcome than we intended.

So I think there are two parts to the debate, and you iterated those at the beginning of our comments. There's the issue of utility and perverse outcomes, then there's the issue of people feeling that they want to be able to do something.

Certainly the media articles that we've seen over the last two months, some of the television interviews with people taking plastic bags out of the back of four-wheel drives, illustrate that point.

The point we would still make is that fundamentally we understand plastic bags to be a litter problem, and the management of litter is complex. It's not a straightforward, "Do A and you get B." We understand that generally the management of litter requires at least three things: education, infrastructure and enforcement, not necessarily in equal parts. It depends where you find yourself and it depends on the problem, but we would see that if you're trying to solve a litter problem and you're trying to take an integrated approach, the results so far, once again reiterating the need to reduce, reuse, recycle - it would be useful to have in addition to that a litter strategy for bags.

We still have litter. We would prefer that there was no litter at all, including bags, so a litter strategy, and certainly some understanding of the impact on litter when measures are applied, would be helpful to inform the debate.

MR WEICKHARDT: The Clean Up Australia statistics, as I recall them, said something like 35 per cent of all the litter that's collected is plastic of some sort but only 7 per cent of that is plastic bags, which comes to make up your 2 per cent. I think I've got those round the right way. But it does seem that if you could eliminate plastic bags altogether, you still have a lot of plastic that's potentially in the litter stream and a lot of other products in the litter stream, none of which are regarded by most of the community as very desirable. So tackling just one of the components that's 2 per cent of the litter stream by a ban seems intuitively a bit peculiar.

MR BURY: We would certainly see that a comprehensive approach cures a large part of the litter stream if it's applied well. In fact, one of the areas where we hope that litter will be improved - we're involved, with many other groups, with the Victoria Litter Action Alliance here in Victoria. The minister has approved a review of the Victorian Litter Act and industry is working with community and government groups to try to understand that.

The other point to make from industry's point of view is that there is a significant frustration from industry's perspective that products are manufactured for use for specific purposes, for desired outcomes, and there are perverse outcomes when the products which are manufactured then become litter. It's even more frustrating for industry to try to improve that. Some improvements can be made by design, for example, but if there are behavioural or cultural issues, or even if there are infrastructure issues beyond the reach of companies, it becomes quite frustrating to companies to try to make general improvements, because products are not manufactured to become litter; they're manufactured for the utility and to serve

consumers.

What we're hoping then, is that if there was a reference body, if you will, or a body of work that explained how products became litter, the seven great ways that you could reduce litter, and you then got strategies that involved industry more, which informed people generally, you would have a better foundation to help reduce litter but also get more engagement. We see that there are some particularly committed people, particularly knowledgeable, and there are some good resources being put into it. We see that that can be supplemented and improved by some improved coordination. It is also needed, I suppose, for the people who actually have to do the work of litter mitigation.

You can be a local by-laws officer in a remote community and you may be the coach of the local footy team, and if culturally litter is dropped, that may make things difficult for you. So, to the credit of the Victorian EPA, Sustainability Victoria and others, there's a program now to support those officers and provide them with extra information, training and community education that takes that broader approach: "Why was the litter there in the first place? It's everybody's problem. How do we support people to make improvements?" I think those broader approaches are generally beneficial. We would also make the comment that, with the increase in littering laws in Victoria, it appears that reporting of littering, particularly cigarette butts out of cars, has increased. We see that as generally a useful thing as well.

MR WEICKHARDT: Thank you. You make some comments about the National Packaging Covenant and indicate that this co-regulatory approach "is one example of a cooperative scheme supported by PACIA". As you will have seen in the draft report, we were left unpersuaded that the National Packaging Covenant had been adequately demonstrated to be an instrument that was in the net community's interests, and it looks, at least at first blush, to have some very significant costs associated with it and some slightly less quantified benefits. Can you talk about why it is that PACIA supports the National Packaging Covenant, and do you have a view about our recommendation that when 2008 comes along, rather than looking at the intricacies of how well the scheme is working, a review should stand back and say, "Is this whole thing really what it's cracked up to be? Is it worth it?"

MR BURY: I'm happy to. If I may first answer a question by asking a question, did your considerations concern particularly the issue around the need to improve over whole of life, or was it targets that the commission felt was a particular problem?

MR WEICKHARDT: We didn't go into it in huge detail, but we simply looked at the huge level of reporting and the large amount of bureaucracy around it and tried to think through the levels of benefits. We went looking for the RIS that was carried

out on it, which appeared to have been a fairly imperfect process, and we were left unpersuaded, I guess. You can't say that we've done a huge job in terms of analysing all the costs and benefits. We were left scratching our heads as to whether or not it really was a scheme that was worth it, and that's why we ended up with our recommendation as saying: in 2008, after there is a bit of experience with it, somebody should stand back and ask, "Was this worth all the effort?"

MR BURY: I certainly appreciate that feedback. In response, then, to your initial question, there's a couple of reasons why PACIA supports the National Packaging Covenant, and there are a number of drivers, I suppose, that we're responding to. In no particular order, those drivers are the community licence to operate and the general concern around packaging our waste. We're also conscious that those concerns sometimes translate into selection or deselection of particular materials that may be meritorious in themselves but haven't had the opportunity to explain why they do what they do.

I think generally people in industry have been looking for mechanisms, for vehicles, involving their customers and other parts of the supply chain to generally make improvements. An alternative to accomplish that could be state by state, material by material, but having those recognised in a form that is generally looking in that direction didn't exist prior to the covenant.

The covenant does a number of things. It provides a national framework, it provides some national consistency, it provides a coordinated approach. As far as we're concerned, with what we know at the moment, it's the best method of using product stewardship, with government support. It's particularly good, I must say, to be able to sit down with all levels of government, state, federal and local, and look at the problem from other people's perspectives and see where the capability, the knowledge, the technology and the direction of industry can complement those concerns and generally improve packaging design and reduce things like litter and improve things like the recycling rate up to the point where it's reasonable and feasible to do so, as we've already agreed.

I think the covenant provides that national consistency which industry values, and industry would have the point of view that, without that, industry would still have to come to terms with meeting the concerns of people, meeting the concerns of governments who are in the position of needing to respond to community concerns and may choose different strategies and different options, where we would prefer to have a single approach which would improve business certainty and therefore business outcomes.

MR WEICKHARDT: Okay, thank you very much indeed for that. It has all been very interesting. I said when we started that I'd move to questions but give you an

opportunity at the end if you felt there was something I hadn't covered that you wanted to particularly talk about.

MR BURY: Yes. Thank you for that opportunity. You've certainly been thorough in your understanding of what we've presented. There are two areas in which we would perhaps like a little more. One was the area of the market based instruments and levies, because this is an area where there is ongoing debate about market based instruments. We've had some experience with levies in different settings and different venues, and for different product types and different problems.

The experience has been that, where levies are able to be hypothecated back to assist a problem which was defined, they can be a useful tool and a useful mechanism, and they perhaps do two things. They can provide focus and they can provide direction - "This is a problem which is considered to be important enough that attention has to be paid to it" - and they also provide a level of funding, as long as the proceeds of the levy are in fact hypothecated back to the problem, to galvanise some support for the knowledge base, because often people are working from very old levels of knowledge or very different levels of knowledge, and bring up to speed the current state of knowledge to see if things can be improved.

So, whilst we recognise the challenges around levies, our input into the debate would be that, if they're hypothecated and if they're applied back to solving the problem which is understood to have been there, we think they are helpful. We would say that, where change is required, in themselves levies aren't the sole catalyst but they're part of the package, which helps make improvement.

MR WEICKHARDT: Can I be rather blunt and ask whether or not your member companies that pay the levies are as enthusiastic about them as you are? I guess a cynic might say the member companies pay the costs of the levies, PACIA enjoys the hypothecated benefit of that coming back to work on various schemes and activities, but ultimately somebody has to pay the piper there. The question is whether or not these schemes ultimately are to the net benefit of the community.

MR BURY: We would see that the role of PACIA is to support members in their endeavours and that PACIA in itself is not a means to its own end. It's PACIA's role to support members, so the mechanisms which we have in place within PACIA we see are very deliberately and strategically lined up to support members in their endeavours.

MR WEICKHARDT: Very politically correct.

MR BURY: I appreciate the feedback. We did have some specific feedback from members, and I think the point was well raised, that industry would prefer not to

have to pay a levy, for it to go into the general cash box, but if there is a problem that we think can be improved, if that money is put to good use, to make improvements along the way, that's something which would be very generally valuable. That's the feedback that we've received.

MR WEICKHARDT: Okay, thank you very much indeed for that.

MR BURY: Thank you very much for your time.

MR WEICKHARDT: Ladies and gentlemen, that concludes today's scheduled proceedings. For the record, is there anyone else here who wants to appear today before the commission? In that case I adjourn these proceedings and the hearings will resume tomorrow at 9 o'clock.

AT 3.01 PM THE INQUIRY WAS ADJOURNED UNTIL
THURSDAY, 3 AUGUST 2006

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